



TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/688,650
		Filing Date	October 17, 2003
		First Named Inventor	Nollert, Peter
		Art Unit	1743
		Examiner Name	
Total Number of Pages in This Submission	6	Attorney Docket Number	018062-003130US

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) <i>(please identify below):</i> Return Postcard
Remarks		The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual	Townsend and Townsend and Crew LLP William F. Vobach Reg. No. 39,411
Signature	<i>William F. Vobach</i>
Date	January 7, 2004

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Kay Barclay		
Signature	<i>Kay Barclay</i>	Date	January 7, 2004

**FEE TRANSMITTAL
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 0**Complete if Known**

Application Number	10/688,650
Filing Date	October 17, 2003
First Named Inventor	Nollert, Peter
Examiner Name	
Art Unit	1743
Attorney Docket No.	018062-003130US

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit
Account
Number

20-1430

Deposit
Account
Name

Townsend and Townsend and Crew LLP

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1)

(\$)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

		Extra Claims		Fee from below		Fee Paid
Total Claims		**	=		X	
Independent Claims		**	=		X	
Multiple Dependent					X	

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Petitions related to provisional applications	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid **SUBTOTAL (3)**

(\$)

SUBMITTED BY**Complete (if applicable)**

Name (Print/Type)	William F. Vobach	Registration No. (Attorney/Agent)	39,411	Telephone	303-571-4000
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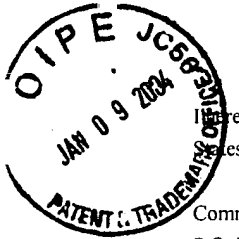
Signature

William F. Vobach

Date

January 7, 2004

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PATENT
Attorney Docket No.: 018062-003130US
Client Reference No.: 2000-026

Commissioner for Patents
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On

January 7, 2004
TOWNSEND and TOWNSEND and CREW LLP

By: [Signature]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Peter Nollert, et al.

Application No.: 10/688,650

Filed: October 17, 2003

For: METHOD AND APPARATUS FOR
PREPARING LIPIDIC MESOPHASE
MATERIAL

Examiner:

Art Unit: 1743

INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR §1.97 and
§1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

Additional References:

Also enclosed is:

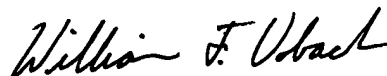
1) a copy of the International Search Report corresponding to the PCT application; and

2) a copy of the International Examination Report corresponding to the PCT application.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



William F. Vobach
Reg. No. 39,411

TOWNSEND and TOWNSEND and CREW LLP
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WFV:klb
60112175 v1



INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/688,650	
			Filing Date	October 17, 2003	
			First Named Inventor	Nollert, Peter	
			Art Unit	1743	
Sheet	1	of	2	Examiner Name	
				Attorney Docket Number	018062-003130US

U.S. PATENT DOCUMENTS+					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	AA	US-6,190,616 B1	02-20-2001	Jovanovich et al.	
	AB	US-6,146,594	11-14-2000	De Graaff et al.	
	AC	US-5,919,356	07-06-1999	Hood, R.G.	
	AD	US-5,879,627	03-09-1999	Tanihata	
	AE	US-5,800,782	09-01-1998	Hagstrom et al.	
	AF	US-5,762,877	06-09-1998	Brewer	
	AG	US-5,454,268	10-03-1995	Kim, Young S.	
	AH	US-5,275,953	01-04-1994	Bull	
	AI	US-5,227,139	07-13-1993	Wong, David M.	
	AJ	US-5,063,025	11-05-1991	Ito	
	AK	US-4,750,373	06-14-1988	Shapiro, Justin J.	
	AL	US-4,615,468	10-07-1986	Gay	
	AM	US-4,011,685	03-15-1977	Boyd et al.	
	AN	US-3,586,064	06-22-1971	Brown et al.	
	AO	US-0007641 A1	07-12-2001	Jovanovich et al.	
	AP	US-0006360 A1	01-17-2002	Neal et al.	
	AQ	US-0001544 A1	01-03-2002	Hess et al.	
	AR	US-			

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	AS	EP	0148116	A1	07-10-1985	Debiopharm SA		<input type="checkbox"/>
	AT	DE	3102142	A1	08-12-1982	Brian Melsungen AG		<input type="checkbox"/>
	AU							<input type="checkbox"/>

Examiner Signature		Date Considered	
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* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/688,650
				Filing Date	October 17, 2003
				First Named Inventor	Nollert, Peter
				Art Unit	1743
				Examiner Name	
Sheet	2	of	2	Attorney Docket Number	018062-003130US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	AV	LANDAU, EM; ROSENBUSCH, JP, Lipidic Cubic Phases: A Novel Concept for the Crystallization of Membrane Proteins, Proc. Natl. Acad. Sci., Vol. 93, pp.14532-14535, December 1996	
	AW	RUMMEL, G., HARDMEYER, A., WIDMER, C., CHIU, M., NOLLERT, P., LOCHER, K., PEDRUZZI, I., LANDAU, E.M., ROSENBUSCH, J., Lipidic Cubic Phases: New Matrices for the Three-Dimensional Crystallization of Membrane Proteins, Journal of Structural Biology, 121, pp. 82-91, 1998.	
	AX	LOEWEN, M., CHIU, M.L. WIDMER, C., LANDAU, E.M., ROSENBUSCH, J.P., NOLLERT, P., G-Protein Coupled Receptors. Methods in Signal Transduction. Chapter 14, X-Ray Crystallography of Membrane Proteins: Concepts and Applications of Lipidic Mesophases to Three-Dimensional Membrane Protein Crystallization CRC-Press; T. Haga, G. Berstein (Eds.), pp. 365-388, 2000.	
	AY	CHIU, M.L., NOLLERT, P., LOEWEN, M., BELRHALI, H., PEBAY-PEYROULA, E., ROSENBUSCH, J.P., LANDAU, E. M., Crystallization in cubo: General Applicability to Membrane Proteins, Acta Cryst. D56, 781-784, (2000).	
	AZ	CHEN, A.H., HUMMEL, B., QIU, H., CAFFREY, M., A Simple Mechanical Mixer for Small Viscous Lipid-Containing Samples, Chemistry and Physics of Lipids, 95:11-21, 1998.	
	AAA	NOLLERT, P., LANDAU, E.M., Enzymic Release of Crystals from Lipidic Cubic Phases, Biochemical Society Transactions 26(4), pp. 709-713, 1998.	
	ABB	NOLLERT, P., ROYANT, A., PEBAY-PEYROULA, E. LANDAU, E.M., Detergent-Free Membrane Protein Crystallization, FEBS Letters 457:205-208, 1999.	
	ACC	LANDAU, E.M., RUNNEL, G., COWAN JACOB, S.W., ROSENBUSCH, J.P., Crystallization of a Polar Protein and Small Molecules from the Aqueous Compartment of Lipidic Cubic Phases, Journal of Physical Chemistry B, 101:1935-1937. 1997.	
	ADD	EDMAN, K., NOLLERT, P., ROYANT, A., BELRHALI, H., PEBAY-PEYROULA, E., HAJDU, J., NEUTZE, R., LANDAU, E.M., High-Resolution X-ray Structure of an Early Intermediate in the Bacteriorhodopsin Photocycle. Nature, Vol. 41, pp. 822-826, October 21, 1999.	
	AEE	LUECKE, H., SCHOBERT, B., RICHTER, H.T., CARTAILLER, J.P., LANYI, J.K., Structural Changes in Bacteriorhodopsin During Ion Transport at 2 Angstrom Resolution, Science 286:255-260, October 8, 1999.	
	AFF	LUECKE, H., SCHOBERT, B., RICHTER, H.T., CARTAILLER, J.P., LANYI, J.K., Structure of Bacteriorhodopsin at 1.55 Angstrom Resolution, Journal of Molecular Biology, 291:899-911, 1999.	
	AGG	BELRHALI, H., NOLLERT, P., ROYANT, A., MENZEL, C., ROSENBUSCH, J.P., LANDAU, E.M., PEBAY-PEYROULA, E., Protein, Lipid and Water Organization in Bacteriorhodopsin Crystals: A Molecular View of the Purple Membrane at 1.9 A Resolution, Structure, Vol. 7, No. 8, 909-917, July 12, 1999.	
	AHH	LUECKE, H., RICHTER, H.T., LANYI, J.K., Proton Transfer Pathways in Bacteriorhodopsin at 2.3 Angstrom Resolution, Science, 280:1934-1937, June 19, 1998.	
	All	PEBAY-PEYROULA, E., RUMMEL, G., ROSENBUSCH, J.P., LANDAU, E.M., X-Ray Structure of Bacteriorhodopsin at 2.5 Angstroms from Microcrystals Grown in Lipidic Cubic Phases, Science, 277:1676-1681, 1997.	
	AJJ	CHANG, C.M., BODMEIER, R., Effect of Dissolution Media and Additives on the Drug Release from Cubic Phase Delivery Systems, Journal of Controlled Release, 46:215-222. 1997.	
	AKK	LONGER, M., TYLE, P., MAUGER, J.W., A Cubic-Phase Oral Drug Delivery System for Controlled Release of AG337, Drug Development and Industrial Pharmacy, 22:603-608, 1996.	

Examiner Signature	Date Considered
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.